Technical requirements for electronic control gears for LED- / fluorescent- luminaires for connection at INOTEC central battery systems



Manufacturer:	Type / Description:			
OSRAM GmbH	Luminaire:			
Marcel-Breuer-Str. 6	EVG: OT FIT 35/220-240/350 D NFC L (ident code: AM10972)			
D-80807 München	LED:			
Project / Place / Project ID:	Specified by: Name: D. Graser Company: OSRAM GmbH			
	Date: 16.07.2018			

Features		Techn. data / INOTEC requirements	Explanation	Fullfilled (Yes / No)	
1	Voltage range AC	230V ± 10%	Voltage range in normal mains operation	Yes	
2	Voltage range DC	186V - 260V	Possible voltage range in emergency operation	Yes	
3	Control gear suitable for "Joker-Voltage" ?	B2-rectification of the AC voltage (without smoothing)	Pulsating DC voltage	Yes	
4	Control gear compatible with change- over time of the system?	Change-over time: 150 - 1000ms	Typical change-over time of INOTEC systems between mains- and battery operation	Yes	
5	Starting behavior of the control gear in DC operation	Stable current consumption within 3s	Necessary for individual lamp monitoring (SV)	Yes	
6	Control gear complies with the standard: (only for fluorescent lamps)	DIN EN 60929	AC and/or DC-supplied electronic control gear for tubular fluorescent lamps - Performance requirements	Not relevant	
1	Control gear complies with the standard: (only for fluorescent lamps)	DIN EN 61347-2-3 (incl. Attachment J)	Particular requirements for AC and/or DC supplied electronic control gear for fluorescent lamps	Not relevant	
8	Control gear complies with the standard: (only for LED)	DIN EN 62384	DC or AC supplied electronic control gear for LED modules - Performance requirements	Yes	
9	Control gear complies with the standard: (only for LED)	DIN EN 61347-2-13	Lamp control gear - Part 2-13: Particular requirements for DC or AC supplied electronic control gear for LED modules	Yes	
10	Control gear complies with the standard:	DIN EN 55015 (Measurement on AC and DC)	Limits and methods of measurement of radio interference	Yes	
11	Control gear complies with the standard:	DIN EN 61000-3-2	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	Yes	
12	Control gear complies with the standard:	DIN EN 61547	Equipment for general lighting purposes — EMC immunity requirements	(*2)Yes	

Note: VDE 0108 is not a standard for ECG, marking is not applicable

Technical requirements for electronic control gears for LED- / fluorescent- luminaires for connection at INOTEC central battery systems



Manufacturer:	Type / Description:			
OSRAM GmbH	Luminaire:			
Marcel-Breuer-Str. 6	EVG: OT FIT 35/220-240/350 D NFC L (ident code: AM10972)			
D-80807 München	LED:			
Project / Place / Project ID:	Specified by:			
	Name: D. Graser			
	Company: OSRAM GmbH			
	Date: 16.07.2018			

Features		Techn. data / INOTEC requirements	Explanation	Manufacturer information
13	with a support of illuminant in		Selection guide for the calculation of the max. number of luminairs per circuit	See Table1
14	Nominal current of the control gear with connected illuminant in DC- operation (216V)		Selection guide for the calculation of the necessary battery capacity	See Table1
15	Nominal current of the control gear with connected illuminant in	J-SV-Modul/S (5-120W): > 20mA = OK J-SV-Modul.2/S (20-300W): > 70mA = OK J-SV-Modul.3/S (2-30W): > 12mA = OK	Selection guide for determination of the monitoring module: The values are not to be undercut within the voltage	See Table1
15	DC- operation (186V und 260V) and pre-set luminous flux	J-SV-Modul.4/S (18-120W): > 70mA = OK J-SV-Modul.L/S (20-120W): > 20mA = OK J-SV-Modul T/S (20-100W): > 60mA = OK	range 186VDC - 260VDC to recognise a normal working lamp correctly.	See Table1
16	Luminous flux in DC- operation (186V)		Important for the safety lighting design	100%
17	Standby current of the control gear with no illuminant connected or with defective illuminant in DC-operation J-SV-Modul.2/S (20-300W): < 45mA = n.OK J-SV-Modul.3/S (2-30W): < 8mA = n.OK J-SV-Modul.4/S (18-120W): < 45mA = n.OK J-SV-Modul.4/S (18-120W): < 10mA = n.OK J-SV-Modul.4/S (20-120W): < 10mA = n.OK J-SV-Modul.4/S (18-120W): < 10mA = n.OK		Selection guide for determination of the monitoring module: The values are not to be exceeded within the voltage range 186VDC - 260VDC to recognise a lamp failure correctly.	See Table1 (*1)
18	Max. inrush current of the control gear with connected lamp in AC operation (230V)	Max. permitted inrush current per circuit / monitoring module: SK 4x2A: 250A / 500μs SK 2x4A: 250A / 500μs SK 2x3A: 250A / 500μs SK 1x6A: 250A / 500μs J-SV-Modul T/S: 40A / 500μs all other J-SV-modules: 80A / 500μs	Describes the max. inrush current of all ballasts in a circuit, to calculate the maximum contact rating of the circuit	lpeak=15A TH=256 μs (*3)

Luminaires, which should work as emergency lighting, have to be in accordance with DIN EN 60598-2-22. (Particular requirements - Luminaires for emergency lighting).

For the correctness:

Signature

^{(*1):} The J-SV-monitoring modules monitor the current consumption on the primary side of the control gear for LED modules within the specified limits. Failures of individual LEDs (low-impedance) on the secondary side do not inevitably lead to a modification of current consumption on the primary side, and in such cases cannot be detected as a failure.

^{(*2):} Not to be used in high risk areas, special release required

^{(*3):} For calculation the inrush current of the monitoring module must be taken into consideration! Notes:

Technical requirements for electronic control gears for LED- / fluorescent- luminaires for connection at INOTEC central battery systems



Table1:

Manufacturer:	Product:	
OSRAM GmbH		000111
Marcel-Breuer Str. 6	OT FIT 35/220-240/350 D NFC L	OSRAM
D-80807 München		OOILAIT

LED controller type	Values for load range	In in AC-operation (230V) / mA (trms)	In in AC- operation (240V) / mA (trms)	IN in DC-operation (186V) / mA (trms)	In in DC- operation (216V) / mA (trms)	IN in DC- operation (240V) / mA (trms)	IN in DC- operation (260V) / mA (trms)
OT FIT 35/220-240/350 D NFC L	Maximum Load /m Uout= 54V lout= 1050mA	177,35	171,50	211,58	180,92	162,78	149,80
	Minimum Load /m. Uout= 27V lout= 800mA		55,67			29,76	
	No Load		32,91	0,68		0,68	0,73
	Short Load		31,86	0,44		2,58	1,73

Maximum inrush current for ECG in AC Operation:

Ipeak=15A

Тн=256μs

